

ABSTRACT OF THE DISCLOSURE

In a radiation image read-out apparatus, a line stimulating light beam is projected onto a stimuable phosphor sheet, and stimulated emission emitted from the irradiated portion of the stimuable phosphor sheet is detected by a line sensor. A refractive index profile type lens array is disposed between the stimuable phosphor sheet and the line sensor. The photoelectric convertor elements of the line sensor and the refractive index profile type lenses of the refractive index profile type lens array are arranged at pitches such that the frequency band of the periodic pattern generated due to the pitches of the refractive index profile type lenses in said refractive index profile type lens array are higher than the frequency band of a radiation image information reproduced on the basis of the image signal.